

Abstract Submitted
for the APR14 Meeting of
The American Physical Society

Abell 2146: A unique bullet cluster system LINDSAY KING, JACOB WHITE, University of Texas at Dallas, REBECCA CANNING, Stanford University, HELEN RUSSELL, Durham University, UK, JOSEPH COLEMAN, University of Texas at Dallas — Abell 2146 is a unique post-merger cluster system, where two clusters have merged about 0.2 Gyr ago. Such systems provide a direct test of dark matter, and our understanding of gravity on large scales. Massive objects in the universe distort space-time and act as gravitational lenses, and we harness this property in our study of the system. We report on our campaign to better understand the dynamics of this system, using spectroscopic data, primarily from the Gemini telescope. This data allows us to determine redshifts for galaxies in the field, and so identify and study cluster members. We also discuss our gravitational lensing analysis of Hubble Space Telescope data, which reveals numerous strongly lensed arcs. This is compared with Chandra X-ray images, which map the distribution and properties of the hot gas in the system.

Lindsay King
Univ of Texas, Dallas

Date submitted: 10 Jan 2014

Electronic form version 1.4